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Transport Malta

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Aircraft Maintenance Programme Development and Approval

1. Introduction

Regulation (EU) No 1321/2014 Annex I (Part-M) M.A.302 requires that Aircraft Maintenance Programmes (AMP's), must establish compliance with the instructions issued by the competent authority and the instructions for continuing airworthiness issued by the holders of Type Certificate (TC), Restricted Type Certificate (RTC), supplementary type certificate (STC), major repair design approval, ETSO authorisation or any other relevant approval issued under Regulation (EU) No 748/2012 and its Annex (Part-21).

It also requires that AMP's and any amendments to them shall be approved by the competent authority. AMC to M.A.302 describes the acceptable means which may be used by aircraft owners/operators in order to achieve compliance with the requirements of M.A.302.

Part-M has been amended by Regulation (EU) No 2015/1088 to address new light aircraft requirements. The concept of **Minimum Inspection Programme** has been introduced for ELA1 aircraft other than airships, not involved in commercial operations.

Commission Regulation (EU) No 965/2012 Part-CAT.GEN.MPA includes provisions for scheduled inspections and checks for operational equipment installed on aircraft operated for Commercial Air Transport.

This Notice is issued to identify the Transport Malta Civil Aviation Directorate (TM CAD) interpretation of the requirements of M.A.302 and the respective means of compliance and to provide some further clarifications and guidance in complying with the requirements and establish national requirements.

These interpretations, clarifications and instructions must be used by owners, operators, Continuing Airworthiness Management Organisations and Maintenance Organisations when developing and presenting for TM CAD approval specific maintenance programmes.

This Notice may be used also by owners/operators of aircraft not covered by EASA regulations ("non-EASA aircraft") for the oversight of which TM CAD is responsible, under the provisions of the Air Navigation Order and Malta Civil Airworthiness Requirements.

2. General principles

Type Certificate and RTC holders of the aircraft, engines and propellers are legally bound to issue Instructions for Continuing Airworthiness (ICA) for their products. The ICA issued by the aircraft manufacturer will normally cover all installed systems and equipment which are standard part of the aircraft. In case of modifications involving the Supplemental Type Certification process, the same requirements apply for the STC holders. The maintenance programmes developed and presented for TM CAD approval shall be based on the ICA issued by the respective TC, RTC and STC holders or Part-21 Design Organisation Approvals as appropriate. In some cases, specific maintenance tasks may not be covered by the ICA, Maintenance Review Board Report (MRBR) or Maintenance Planning Document (MPD) issued by the TC or STC holders. In absence of specific recommendations issued by the TC or STC holder or other equipment manufacturer with regard to aircraft system or component, the instructions identified in Table 1 of this IAN constitute the National Requirements. These maintenance tasks should be integrated in the complete maintenance programme and can be included within the scheduled maintenance checks (e.g. as part of the annual inspection) or as out of phase maintenance at the specified intervals.

Other modifications (not involving the STC process) and some repairs may also necessitate development of maintenance tasks to be integrated in the maintenance programme.

Competent authorities may issue mandatory information in the form of Airworthiness Directives or Operating Directives, which in some cases may necessitate introduction of certain maintenance tasks in the AMP affected by the associated AD or OD.

EASA also issues Service Information Bulletins (SIB) related to maintenance tasks and recommendations which may be mandated by the TM CAD.

Any aircraft should only be maintained to one maintenance programme at a given point in time. In case an owner/operator or a CAMO wishes to change from one approved programme to another, a bridging check or inspection may need to be performed in order to implement the change. This may also be the case when developing and approving a maintenance programme when importing used aircraft into Malta.

New or modified applicable mandatory requirements on which the programme is based (e.g. TC/STC holders MRB report, MPD, ATA AMM Chapter 05, ALI's, life limitations, ICA and competent authority instructions, including ones introduced through Airworthiness Directives) should be incorporated in the programme as soon as possible. In any case, the maintenance programme details should be reviewed at least annually with, as a minimum, a review of all of the documents on which the programme is based.

For aircraft used for commercial air transport, the programme should also be monitored for its effectiveness in accordance with approved procedures in the CAME. The system principles should be briefly described in maintenance programme's introduction section with more detailed description to be provided in the associated Continuing Airworthiness Management Exposition (CAME).

In developing the maintenance programme, owners/operators/CAMO should take into account the aircraft anticipated utilisation and nature of operation, e.g. VFR or IFR flights, low flying, saline or sandy conditions, anticipated flight hours to flight cycles ratio,

predominant weather conditions at the place the aircraft will be based and/or operated, specific airspace requirements (e.g. RVSM, ETOPS, AWO, RNAV etc.) or airport conditions. In cases whereby manufacturer recommendations are developed assuming specific aircraft annual utilisation and substantially different utilisation is anticipated for the aircraft to which the programme applies, the programme tasks should be assessed and intervals modified as appropriate.

3. Maintenance Programme content

M.A. 302 (d) requires that the maintenance programme shall contain details, including frequency, of all maintenance to be carried out, including any specific tasks linked to specific operations. This means that all maintenance tasks to which the aircraft, its engine(s), propeller(s), systems and equipment should be subjected during its whole operational life should be listed, together with their brief description and intervals (frequencies) at which they should be performed.

AMC M.A.302 points 4, 5, 6 and Appendix 1 provide description and details about the maintenance programme content. The table presented in Appendix V to this IAN provides a summary in relation to the content of the maintenance programme, its approval and its link with the airworthiness review.

Maintenance programmes should normally be based on documents such as: maintenance review board (MRB) report, where applicable; maintenance planning document (MPD); relevant ATA chapters of the maintenance manual; service manual or any other supplemental maintenance data/ICA issued by the TC/STC holder, DOA or equipment manufacturer containing maintenance scheduling.

When an aircraft is maintained in accordance with a maintenance programme based on a MRB report process, any associated programme for the continuing surveillance of the reliability, or health monitoring of the aircraft should be considered as part of the aircraft maintenance programme.

In all cases, the documents which form the basis on which the programme had been developed should be identified in the programme's introduction section together with their current revision/amendment status. Individual tasks should bear reference to the source document from which they were derived plus any additional information specific to the tasks, e.g. MRBR, MPD, Low Utilisation MPD, AMM Chapter 05, AD, ALI, CMR*, CMR**, CPCP, CDCCL, EZAP, EWIS, STC ICA, AMMS, RVSM, ETOPS, CAT II AWO, TM CAD recommendations etc.

The aircraft to which the maintenance programme relates should be identified in the introductory section by: manufacturer designation (type and series), manufacturer serial No, Registration Marks. Engine, propeller and APU types should be identified as applicable.

Tasks intervals/frequencies permitted variations, tasks escalation and adjustment procedures should be included in the programme's Introduction section.

Pilot-owner maintenance (if applicable) and identification of tasks that can be performed by pilot-owner shall be also covered.

The scope of the limited pilot-owner maintenance shall be specified in the aircraft maintenance programme.

The names of all pilot-owners competent and designated to perform Pilot-owner maintenance shall be listed in the maintenance programme.

It is also recommended that a section in the AMP dedicated to aircraft storage detailing the manufacturers' recommendations for aircraft and engine storage is incorporated in the AMP.

In the case of **other-than complex motor-powered aircraft,** AMC M.A.302(e) provides an example/template for an AMP, the template is presented in Appendix II of this IAN.

In the case of ELA1 aircraft other than airships, not involved in commercial operations, the **"Minimum Inspection Programme" (MIP)** shall comply with the following conditions:

1. It shall contain the following inspection intervals:
    - For ELA1 aeroplanes and ELA1 Touring Motor Gliders (TMG), every annual or 100 h interval, whichever comes first. A tolerance of 1 month or 10 h may be applied to that interval as long as the next interval is calculated from the date or hours originally scheduled.
    - For ELA1 sailplanes, ELA1 powered sailplanes other than TMG and ELA1 balloons, every annual interval. A tolerance of 1 month may be applied to that interval as long as the next interval is calculated from the date originally scheduled.

2. It shall contain the following:
    - Servicing tasks as required by the Design Approval Holder's requirements.
    - Inspection of markings.
    - Review of weighing records and weighing in accordance with Commission Regulation (EU) No 965/2012, point NCO.POL.105.
    - Operational test of transponder (if existing).
    - Operational test of the pitot-static system.
    - In the case of ELA1 aeroplanes:
        - Operational checks for power and rpm, magnetos, fuel and oil pressure, engine temperatures.
        - For engines equipped with automated engine control, the published run-up procedure.
        - For dry-sump engines, engines with turbochargers and liquid-cooled engines, an operational check for signs of disturbed fluid circulation.
    - Inspection of the condition and attachment of the structural items, systems and components corresponding to the following areas:
        - For ELA1 aeroplanes:
            — Airframe
            — Cabin and cockpit
            — Landing gear
            — Wing and centre section
            — Flight controls

— Empennage
— Avionics and electrics
— Powerplant
— Clutches and gearboxes
— Propeller
— Miscellaneous systems such as the ballistic rescue system

- For ELA1 sailplanes and ELA1 powered sailplanes:
  — Airframe
  — Cabin and cockpit
  — Landing gear
  — Wing and centre section
  — Empennage
  — Avionics and electrics
  — Powerplant (when applicable)
  — Miscellaneous systems such as removable ballast, drag chute and controls, and water ballast system
- For ELA1 hot-air balloons:
  — Envelope
  — Burner
  — Basket
  — Fuel containers
  — Equipment and instruments
- For ELA1 gas balloons:
  — Envelope
  — Basket
  — Equipment and instruments

AMC M.A.302(i) provides the example/template for the MIP. The MIP for ELA1 Aeroplanes is being reproduced as Appendix 3 to this IAN.

The MIP is a provision which enables the owner of the aircraft to develop an AMP which is not directly approved by TM CAD. It defines the minimum requirements of an AMP in a generic manner.

If the maintenance programme is not approved by TM CAD (directly or by the M.A. Subpart G organisation via an indirect approval procedure), the aircraft maintenance programme shall contain a signed statement where the owner declares that this is the aircraft maintenance programme for the particular aircraft registration and he/she declares to be fully responsible for its content and, in particular, for any deviations introduced as regards the Design Approval Holder recommendations.

Appendix IV presents a table summarising development and approval of aircraft maintenance programmes for private aircraft other than large.

4. Reliability programmes

Part-M.A.302(d) requires that the maintenance programme includes a reliability programme when the maintenance programme is based on Maintenance Steering Group (MSG) logic or is based mainly on condition monitoring. AMC M.A.302(d) and Appendix 1 to AMC M.A.302 and M.B.301(d) provide extensive guidance on this matter.

For those operators where the fleet of same aircraft type is small, it is encouraged that the operator participates in fleet reliability programmes of the aircraft TC Holder. Reliability meetings should also be held in conjunction with the Airworthiness

Inspectorate at agreed intervals, to assess this programme and evaluate the effectiveness of the maintenance programme. Escalations of scheduled tasks shall be based on reliability programmes and shall be approved directly by TM CAD.

5. Flight Recorders

Part-CAT.GEN.MPA.195 covers the requirement for inspection and checking of flight recorders for **aircraft operated for CAT**.

Part-NCC.GEN.145 (b) covers the requirement for inspection and checking of flight recorders for **non-commercial air operations with complex motor powered aircraft**. This will be applicable as from 25 August 2016.

Part-SPO.GEN.145 (b) also covers requirements for checking of recorders in **complex motor-powered aircraft operated for specialised activities** (aerial work). This will be applicable as from 21 April 2017.

The requirements found in the Part-CAT AMCs to this regulation are very much in keeping with the TM CAD long-time policies on CVR and FDR testing and checking. However the operator can avail from certain exemptions from scheduled inspections of FDRs and CVRs on account of redundancy of equipment installed on the aircraft and the Flight Data Monitoring programme of the operator. The conditions found in **AMC1 CAT.GEN.MPA.195 (b)** have to be met for such exemptions.

It is to be noted that data link recording may be checked as part of CVR testing. In case of any doubts, the OEMs should be contacted for verification.

FDR and CVR malfunction occurrences, recurrent reliability issues and recording quality deficiencies should be reported to the competent authority and to the TC or STC Holder.

Dispatch with any known recording failure of the CVR or of FDR required parameter(s) should not be authorised, unless it is done in accordance with the provisions of the operator’s approved Minimum Equipment List.

6. Indirect Approval of Aircraft Maintenance Programmes

Indirect approval of maintenance programmes shall be managed in accordance with approved procedures in the CAME. The procedure in the CAME should at least contain the following elements:

- Development and control of document;
- Review, assessment and checking of document (refer to AMC M.B.301(c)2);
- Internal approval of document;
- Authorised personnel to develop, check and approve the document;
- Training and experience requirements for the accomplishment of related tasks;
- Conditions and limitations for indirect approval;
- Interface with TM CAD.

The indirect approval procedure shall not be used when the organisation is not under the oversight of TM-CAD.

7. Annual Review (ELA1 aircraft not involved in commercial operations)

The aircraft maintenance programme shall be reviewed at least annually. This review of the maintenance programme shall be performed either:

- by the person who performs the airworthiness review of the aircraft, or
- by the M.A. Subpart G organisation managing the continuing airworthiness of the aircraft in those cases where the review of the maintenance programme is not performed in conjunction with an airworthiness review.

If the review shows discrepancies on the aircraft linked to deficiencies in the content of the maintenance programme, the person performing the review shall inform the competent authority of the Member State of registry and the owner shall amend the maintenance programme as agreed with such competent authority.

The annual review should take into consideration results from performed maintenance, results from the airworthiness review, changes to TC Holders recommendations, ALIs, from TC Holders, changes, repairs and AD's. (Refer to AMC M.A.302(h)).

8. TM Civil Aviation Directorate additional requirements and policy

In absence of specific recommendations issued by the TC or STC holder or other equipment manufacturer the maintenance tasks identified in the table below should be used by the owners/operators and CAMO's when developing aircraft maintenance programmes.

Maintenance Inspection Programs developed for ELA 1 aircraft not involved in commercial operations shall include Maintenance Tasks listed in Table 1 as applicable.

<u>Terminology</u>

Inspection
A visual check performed externally or internally to detect unsatisfactory conditions/discrepancies using, where necessary, inspection aids (mirrors, torches,

magnifying glasses etc.) Surface cleaning and removal of panels, covers and fabric may be required.

Check
Verification of compliance with the instructions specified in the maintenance data.

Operational Check
A test used to determine that a system or component or any function thereof is operating normally. This is usually performed by operating the system or the component on the aircraft either in normal or in test mode.

Functional Check
A detailed examination of a complete system, sub-system or component to determine if operating parameters are within limits of range of movement, rate of flow, temperature, pressure, revolutions per minute, degrees of travel, etc., as specified in the appropriate maintenance data. Parameters are usually measured and recorded. External test equipment is usually used.

Bench test
Functional check of a component off the aircraft using ground testing/laboratory equipment.

Table 1 - Maintenance tasks and intervals

(refer also to associated Notes)

No	Task	Nature of Maintenance	Interval
1	Lead-acid battery capacity test	Bench test	12 months
2	Nickel-cadmium battery capacity test	Bench Test	12 months
3	Compass swing (Note 1)	Functional check	36 months/ 24 months (Note1)
4	Airspeed calibration (Note 2)	Calibration	24 months
5	Altimeter calibration (Note 2)	Calibration	24 months
6	Pitot/static system leak check	Functional check/Calibration	24 months
7	Hydrostatic test of pressure vessels (Note 3)	Inspection & bench check	60 months (Note 3)
8	Flexible fuel and oil hoses pressure test.	Inspection & bench check	72 months Repeat 36 months
9	Fire extinguisher content by weight	Check	12 months
10	Ground function pressurisation check	Functional check	36 months
11	Cabin heat exchanger pressure test	Check	12 months
12	First Aid Kit contents	Check	12 months
13	Over/under voltage system warnings. Load sharing.	Operational check	12 months
14	Ground operable circuits, manually operated circuit breakers.	Operational check	12 months
15	HF transceiver	Operational check	12 months
16	ADF receiver (Note 4)	Functional check	12 months

17	ILS receiver (Note 5)	Functional check	12 months
18	VOR receiver (Note 6)	Functional check	12 months
19	Marker (Note 7)	Functional check	12 months
20	DME (Note 8)	Functional check	12 months
21a	Transponder (Note 9)	Functional check	12 months
21b	Mode S Transponder (Note 16)	Functional check	24 months
22	Radio altimeter	Operational check	12 months
23	Weather radar	Operational check	12 months
24	Satellite navigation (GPS)	Operational check	12 months
25	Audio/intercom including emergency operation	Operational check	12 months
26	FDR read-out intelligibility check (Note 10,15,18) (operational checks and evaluations)	Check	12 months
27	FDR system (Note 10,15)	Calibration	5 years
28	Data Link recording intelligibility check (Note 10) (operational checks and evaluations)	Check	5 years
29	FDR airspeed and altitude discrete sensors (Note 10)	Calibration	2 years
30	CVR intelligibility check (Note 10,15,18) (operational checks and evaluations)	Check	12 months
31	ELT (Battery and Transmitter overhaul) (Note 11)	ELT Manufacturers' Recommendations Refer to Installation Manuals	
32	Auto pilot/Flight director	Operational check	12 months
33	Instruments and indicators (Note 12)	Inspection & operational check	12 months
34	VHF transceiver (Note 13)	Functional check	36 months
35	HF transceiver (Note 13)	Functional check	36 months
36	Aerials and feeders (Note 14)	Functional check	36 months
37	Aircraft Weight & Balance (Note 17)	Aircraft weighing	4/5 years

Notes:

1. Applies for remote and stand-by magnetic compasses. For aircraft in which magnetic compass is used as means of primary navigation device – 24 months. For aircraft in which magnetic compass is used as means of supplemental navigation device - 36 months. Stand-by magnetic compass – 36 months.
2. Calibration in-situ is permitted. Includes stand-by units.
3. Including fire extinguisher vessels. Refer to EASA SIB No: 2015-11
4. Using stations of known bearing for checking accuracy. Check audio signal on all bands.
5. With a field test set, including flag warnings, accuracy, sense, course width and audio.
6. With a field test set, including flag warnings, radial resolving, RMI accuracy at 90° intervals.
7. With a field test set, including 3-tone operational check, high/low sensitivity.
8. With a field test set, including range accuracy, audio.
9. With a field test set, including frequency tolerance, side lobe suppression, mode "C".
10. Prior to the first flight of the day, the built-in test features for the flight recorders and flight data acquisition unit (FDAU), when installed, shall be monitored by manual and/or automatic checks.
Refer to Eurocae Document ED-112 and EASA SIB No 2009-28R1

11. Reference to the ELT installation/operations manual from the manufacturers' of the ELT should be made
12. Applies to all instruments and indicators. Check for satisfactory condition, mounting, marking and operation (on ground).
13 With a field test. Frequency tolerance is to be checked only if recommended by the equipment manufacturer.
14. VSWR for DME and transponder; insulation for HF system.
15. In case of DFDR/SSCVR consult with the AI in case maintenance requirements diverge significantly from Tasks 26,27,28,29.
16. Refer to EASA SIB No 2011-15 recommendations for ground testing and Appendix I to this IAN).testing.
17. For CAT operated aircraft please refer to Air OPS Section 3 - **CAT.POL.MAB.100** Mass and balance, loading.
18. Unless the conditions of Air OPS Section 3 - **CAT.GEN.MPA.195(b)** are met.

7. Administrative provisions

Owners/operators and CAMO's shall submit aircraft maintenance programmes or amendments/revisions thereof for TM CAD approval accompanied by a cover letter. The cover letter should contain a statement on how compliance with the respective Part-M requirements and the provisions of this IAN was achieved. They may be requested, if found necessary, to submit copies of the respective documentation used, on which the programme development was based (electronic format may be acceptable) or to provide access to such documentation.

Following the approval of the maintenance programme, copies of the document have to be distributed as per distribution list. A copy of the document has to be submitted to the Airworthiness Inspectorate for reference.

Appendix I – Extract from EASA SIB 2011-15

Testing for correct functionality should include the following items:

- The Mode S 24-Bit aircraft address
- Altitude reporting including the check of the altitude sensor at adequate intervals from ground to the certified altitude ceiling of the aircraft
- Mode S Elementary Surveillance (ELS) & Downlink Aircraft Parameters (DAPs):
    - Aircraft Identification
    - Capability Report
    - Pressure Altitude
    - Flight Status
- Mode S Enhances Surveillance (EHS) & Downlink Aircraft Parameters (DAPs)
    - Magnetic Heading
    - Indicated Airspeed
    - Mach No.
    - Vertical Rate
    - Roll Angle
    - Track Angle Rate or True Airspeed
    - True Track Angle
    - Ground Speed
    - Selected Altitude (and Barometric Pressure Setting where appropriate)

Note 1: Care should be taken, not to disturb the operation of ATC or other aircraft when performing any transponder (or ACAS) related tests. Guidance for the ground testing of transponders can be found in Appendix 1 of this SIB.

Note 2: In case the ramp test equipment indicates an error with the transmission of the data as specified above, or indicates any other type of failure (e.g. out of frequency, power etc), the problem should be corrected prior to the next flight.

Note 3; Detailed information on EHS DAP's may be found in EASA AMC 20-13 - Certification of Mode S Transponder Systems for Enhanced Surveillance.

Appendix II – Example of Aircraft Maintenance Programme (for Aircraft other than 'complex motor-powered aircraft'

Example of Aircraft Maintenance Programme (for aircraft other than 'complex motor-powered aircraft')	
Owner ☐ - Lessee ☐ - CAMO ☐ (The person/organisation responsible for the continuing airworthiness according to M.A.201) 'I will ensure that the aircraft is maintained in accordance with this maintenance programme and that the maintenance programme will be reviewed and updated as required' Signature **1**	
Name/Address:	Contact: Telephone: E-mail: Fax: **2**
Aircraft Registration: **3**	
Aircraft Manufacturer:	Engine Manufacturer:
Aircraft Type/Model:	Engine Type/Model):
Aircraft Serial number:	Propeller Manufacturer:
	Propeller Type/Model: **4**

Basic information for the maintenance programme:

- **either maintenance data from the Design Approval Holder, or**
- **in the case of ELA1 aircraft not involved in commercial operations, the maintenance tasks contained in the Part-M M.A.302(i) 'Minimum Inspection Programme'**

Directly list the details of each maintenance task for the aircraft/engine/propeller (description, interval, etc.) or, as an alternative, provide such details by reference to particular documents/manuals/checklists (including revision level status, which should be updated at the time of the Periodic Reviews referred to in Table 3).

In the case of ELA1 aircraft not involved in commercial operations, if the option selected is to follow the maintenance data from the Design Approval Holder, at least the maintenance manuals and the maintenance schedules in the latest version should be followed.

In the case of ELA1 aircraft not involved in commercial operations, if the option selected is to follow the 'Minimum Inspection Programme', the owner should review the maintenance data from the Design Approval Holder to identify if there are specific inspections to be performed at intervals

different to 100 h and/or annual interval.

Enter in Table 2 any deviations to the Design Approval Holder recommendations, together with the alternative inspections/tasks to be performed. This may include a change to the recommended intervals or the decision not to perform a particular recommended maintenance task.

Indicate the option selected:
Minimum Inspection Programme ☐
Design Approval Holder Data ☐

NOTE: Regardless of the option selected, the maintenance programme shall not be less restrictive than the 'Minimum Inspection Programme' (see M.A.302(h)2).

List of maintenance tasks for the aircraft/engine/propeller or reference to particular documents/manuals/checklists (including revision level):

5

Specific equipment and modifications: Are there any additional maintenance measures required due to specific installed equipment and/or modifications of the aircraft? If yes, enter in Table 1.	Yes ☐ No ☐ **6**
Repairs: Are there any additional maintenance measures required due to repairs incorporated on the aircraft? If yes, enter in Table 1.	Yes ☐ No ☐ **7**
Mandatory Continuing Airworthiness Instructions (ALIs, CMRs, specific maintenance requirements contained in the TCDS, etc.): Are there any mandatory continuing airworthiness requirements? If yes, enter in Table 1.	Yes ☐ No ☐ **8**
Repetitive Airworthiness Directives (AD): Are there any applicable airworthiness directives which are repetitive? If yes, enter in Table 1.	Yes ☐ No ☐ **9**
Maintenance recommendations: Are there any other maintenance measures, such as TBO intervals, recommended through service bulletins, service letters, etc.? If yes, enter in Table 1. Enter in Table 2 any deviations to the maintenance recommendations mentioned above, together with the alternative inspections/tasks to be performed. This may include a change to the recommended intervals or the decision not to perform a particular recommended maintenance task.	Yes ☐ No ☐ **10**
Operational and airspace directives/requirements: Are there any applicable national*/European operational and/or airspace directives/requirements such as inspection of airspeed indicator, altimeter, compass, transponder, etc.? If yes, enter in Table 1. * Only applicable if the national operational and airspace rules have not been superseded by European rules.	Yes ☐ No ☐ **11**

Special operational approvals: Are there any additional maintenance measures due to specific Special Approvals (E.g. Reduced Vertical Separation Minima RVSM, Minimum Navigation Performance Specification MNPS, Basic Area Navigation B-NAV)? If yes, enter in Table 1.	Yes ☐ No ☐ **12**
Use of the aircraft and operational environment: Are there any additional maintenance measures required due to the use of the aircraft and the operational environment? If yes, enter in Table 1. In the case of high utilisation aircraft (aircraft flying more than 200 hours per year) using the 'Minimum Inspection Programme', consideration should be given to additional inspections required by the Design Approval Holder (at intervals higher than 100 h). Enter in Table 2 any deviations to the Design Approval Holder recommendations, together with the alternative inspections/tasks to be performed. This may include a change to the recommended intervals or the decision not to perform a particular recommended maintenance task.	Yes ☐ No ☐ **13**
Pilot-Owner Maintenance (for privately operated non-complex motor-powered aircraft of 2730 kg MTOM and below, sailplanes, powered-sailplanes and balloons): Are there any maintenance actions performed by the Pilot-owner (ref. Part-M, M.A.803)? Enter in Table 1: • The list of tasks • The name of the pilot-owner(s) or the alternative procedure described in AMC M.A.803 point 3.	Yes ☐ No ☐ **14**

Table 1 (see fields 6 through 14)

Interval	Task Description	References (incl. revision date)
Specific Equipment and Modifications		
Repairs		
Mandatory Continuing Airworthiness Instructions (ALIs, CMRs, etc.)		

Repetitive Airworthiness Directives		
Maintenance recommendations (see deviations in Table 2)		
Operational Directives/requirements		
Special operational approvals		
Use of the aircraft and operational environment		
Pilot-owner maintenance		

The above Pilot-Owner maintenance will be performed in accordance with Commission Regulation (EC) No 2042/2003, Part-M.

Pilot-owner name:_____ **Licence Number:**_____
Signature: _____ **Date:** _____

NOTE: If there are several Pilot-Owners, include a separate list for each Pilot-Owner.

Table 2 (deviations from recommended maintenance intervals, see fields 5, 10 and 13)			
Interval		**Task Description**	**Alternative Inspections / Tasks**
Recommended	**Changed to**		

Table 3 (Record of periodic reviews of the maintenance programme)(In accordance with M.A.302(g) or M.A.302(h)5, as applicable)	
Describe whether the review has resulted or not in changes to the MaintenanceProgramme (any changes introduced will be described in Table 4 below	**Date and Signature**

Table 4 (Revision control of the maintenance programme)		
Rev. No	**Content of Revision**	**Date and Signature**

Approval/Declaration of the Maintenance Programme (select one of the following three approval options):

Declaration by the owner (only for ELA1 aircraft not involved in commercial operations and under the conditions of Part-M, M.A.302(h))**:**

I hereby declare that this is the maintenance programme applicable to the aircraft referred to in fields 3 and 4 and I am fully responsible for its content and, in particular, for any deviations introduced as regards the Design Approval Holder recommendations. I am fully aware that this aircraft cannot be operated for commercial operations.

Name/Signature:

_____

Date of signature: _____

Approved by the contracted CAMO (only in those cases where the organisation has an 'indirect approval procedure' approved by their competent authority and limited to those cases where such authority is also responsible for the approval of the maintenance programme):
Approval reference No of the CAMO: _____
Name/Signature:

_____

Date of signature: _____

Approved by the competent authority responsible for the maintenance programme:
Competent Authority: _____
Name/Signature/Stamp:

_____

Date of signature: _____

Appendix III – Minimum inspection Programme for ELA1 Aeroplanes not involved in Commercial Operations

All tasks included in the Minimum Inspection Programme are to be performed every annual / 100 h interval, whichever occurs first. A tolerance of 1 month or 10 h may be applied. However, the next interval counts from the date/hours originally scheduled (without the tolerance).

Note 1: Use the manufacturer's maintenance manual to accomplish each task/inspection.

Note 2: Proper function of backup or secondary systems and components should be included for every instance where a check is performed for improper installation/operation.

ELA1 aeroplanes not involved in commercial operations	
System/component/ area	**Task & Inspection detail**
GENERAL	
General	Remove or open all necessary inspection plates, access doors, fairings, and cowlings. Clean the aircraft and aircraft engine as required.
Lubrication/servicing	Lubricate and replenish fluids in accordance with manufacturer's requirements.
Markings	Check that side and under-wing registration markings are correct. If applicable, check that an exemption for alternate display is approved. Identification plate for National Aviation Authority registered aircraft is present. Other identification markings on fuselage in accordance with local (national) rules.
Weighing:	Review weighing record to establish accuracy against installed equipment. Weigh the aircraft as required by Regulation Part-NCO.
AIRFRAME	
Fabric and skin	Inspect for deterioration, distortion, other evidence of failure, and defective or insecure attachment of fittings. NOTE: When checking composite structures, check for signs of impact or pressure damage that may indicate underlying damage.
Fuselage structure	Check frames, formers, tubular structure, braces, and attachments. Inspect for signs of corrosion.
Systems and components	Inspect for improper installation, apparent defects, and unsatisfactory operation.
Pitot/static system	Inspect for security, damage, cleanliness, and condition. Drain any water from condensation drains.
General	Inspect for lack of cleanliness and loose equipment that might foul the controls.
Tow hooks	Inspect for condition of moving parts and wear. Check service life. Carry out operational test.
CABIN AND COCKPIT	
Seats, safety belts and harnesses	Inspect for poor condition and apparent defects. Check for service life.

Windows, canopies and windshields	Inspect for deterioration and damage, and for function of emergency jettison.
Instrument panel assemblies	Inspect for poor condition, mounting, marking, and (where practicable) improper operation. Check markings of instruments in accordance with Flight Manual.
Flight and engine controls	Inspect for improper installation and improper operation.
Speed/weight/ manoeuvre placard	Check placard is correct and legible and accurately reflects the status of the aircraft.
All systems	Inspect for improper installation, poor general condition, apparent and obvious defects, and insecurity of attachment.
LANDING GEAR	
Shock-absorbing devices	Inspect for improper oleo fluid level. Inspect for wear and deformation of rubber pads, bungees, and springs.
All units	Inspect for poor condition and insecurity of attachment.
Retracting and locking mechanism	Inspect for improper operation.
Linkages, trusses and members	Inspect for undue or excessive wear fatigue and distortion.
Hydraulic lines	Inspect for leakage. Check service life.
Electrical system	Inspect for chafing and improper operation of switches.
Wheels	Inspect for cracks, defects, and condition of bearings.
Tires	Inspect for wear and cuts.
Brakes	Inspect for improper adjustment and wear. Carry out operational test.
Floats and skis	Inspect for insecure attachment and obvious or apparent defects.
WING AND CENTRE SECTION	
All components	Inspect all components of the wing and centre section assembly for poor general condition, fabric or skin deterioration, distortion, evidence of failure, insecurity of attachment.
Connections	Inspect main connections (e.g. between wings, fuselage, wing tips) for proper fit, play within tolerances, wear or corrosion on bolts and bushings.
FLIGHT CONTROLS	
Control circuit/stops	Inspect control rods and cables. Check that the control stops are secure and make contact.
Control surfaces	Inspect aileron, flap, elevator, air brake and rudder assemblies, hinges, control connections, springs/bungees, tapes and seals. Check full range of motion and free play.
Trim systems	Inspect trim surfaces, controls, and connections. Check full range of motion.
EMPENNAGE	
All components and systems	Inspect all components and systems that make up the complete empennage assembly for poor general condition, fabric or skin deterioration, distortion, evidence of failure, insecure attachment, improper component installation, and improper component operation.

AVIONICS AND ELECTRICS	
Batteries	Inspect for improper installation, improper charge and spillage and corrosion.
Radio and electronic equipment	Inspect for improper installation and insecure mounting. Carry out ground function test.
Wiring and conduits	Inspect for improper routing, insecure mounting, and obvious defects.
Bonding and shielding	Inspect for improper installation, poor condition, and chafing and wear of insulation.
Antennas	Inspect for poor condition, insecure mounting, and improper operation.
POWERPLANT	
Engine section	Inspect for visual evidence of excessive oil, fuel or hydraulic leaks and sources of such leaks.
Studs and nuts	Inspect for looseness, signs of rotation and obvious defects.
Internal engine	Inspect for cylinder compression (record measures for each cylinder) and for metal particles or foreign matter in oil filter, screens and sump drain plugs. If there is weak cylinder compression, inspect for improper internal condition and improper internal tolerances.
Engine mounts	Inspect for cracks, looseness of mounting, and looseness of the engine to mount attachment.
Flexible vibration dampeners	Inspect for poor condition and deterioration.
Engine controls	Inspect for defects, improper travel, and improper safetying.
Lines, hoses and clamps	Inspect for leaks, improper condition, and looseness.
Exhaust stacks	Inspect for cracks, defects, and improper attachment.
Turbocharger and intercooler	Inspect for leaks, improper condition, and looseness of connections and fittings.
Liquid cooling systems	Inspect for leaks and proper fluid level.
Electronic engine control	Inspect for signs of chafing and proper electronics and sensor installation.
Accessories	Inspect for apparent defects in security of mounting.
All systems	Inspect for improper installation, poor general condition, defects and insecure attachment.
Cowling	Inspect for cracks and defects. Check cowling flaps.
Cooling baffles and seals	Inspect for defects, improper attachment, and wear.
Fuel tanks	Inspect for improper installation and connection.
CLUTCHES AND GEARBOXES	
Filters, screens, and chip detectors	Inspect for metal particles and foreign matter.
Exterior	Inspect for oil leaks.
Output shaft	Inspect for excessive bearing play and condition.
PROPELLER	
Propeller assembly	Inspect for cracks, nicks, binds, and oil leakage.
Propeller bolts	Inspect for improper torque, looseness, signs of rotation, and lack of safetying.

Propeller control mechanism	Inspect for improper operation, insecure mounting, and restricted travel.
Anti-icing devices	Inspect for improper operation and obvious defects.
MISCELLANEOUS	
Ballistic rescue system	Inspect for proper installation, unbroken activation mechanism, proper securing while on ground, validity of inspection periods of pyrotechnic devices, and parachute packing intervals.
Other miscellaneous items	Inspect installed miscellaneous items that are not otherwise covered by this listing for improper installation and improper operation.
OPERATIONAL CHECKS	
Power and rpm	Check that power output, static and idle rpm are within published limits.
Magnetos	Check for normal function.
Fuel and oil pressure	Check they are within normal values.
Engine temperatures	Check they are within normal values.
Engine	For engines equipped with automated engine control (e.g. FADEC), perform the published run-up procedure and check for discrepancies.
Engine	For dry-sump engines and engines with turbochargers and for liquid cooled engines, check for signs of disturbed fluid circulation.
Pitot-static system	Perform operational check.
Transponder	Perform operational check.

Appendix IV – Maintenance Programme Development and Approval (for private aircraft other than large)

	Option 1 (for private aircraft other than large)	Option 2 (for private aircraft other than large)	Option 3 (for ELA2 aircraft not involved in commercial operations)
Development and processing of the approval of the maintenance programme	Performed by the owner	Contracted to a CAMO (whether it is done through a full contract for the continuing airworthiness management of the aircraft or through a limited contract for the development and processing of the maintenance programme)	Contracted to a Part-145 or M.A. Subpart F maintenance organisation (see M.A.201(e)(ii))
Approval/Declaration of the maintenance programme	Direct approval by the TM-CAD Or Declaration by the owner **(only for ELA1 aircraft not involved in commercial operations, see M.A.302(h))**	Direct approval by the TM-CAD Or Indirect approval by the contracted CAMO Or Declaration by the owner **(only for ELA1 aircraft not involved in commercial operations, see M.A.302(h))**	Direct approval by the TM-CAD Or Declaration by the owner **(only for ELA1 aircraft not involved in commercial operations, see M.A.302(h))**

Appendix V – Maintenance Programme Content and Airworthiness Review (for all Aircraft)

	Option 1 (for all aircraft)	**Option 2 (for ELA1 aircraft not involved in commercial operations)**
Basic information used for the maintenance programme	Maintenance data from the Design Approval Holder (complying with M.A.302(d) and (e))	Minimum Inspection Programme (see M.A.302(h)2 and M.A.302(i)) **(not applicable to airships)**
Customisation to a particular aircraft registration	Complying with M.A.302(e) Or Using the template in AMC M.A.302(e) **(only for aircraft other than complex) (appendix III of this IAN)**	Using the template in AMC M.A.302(e) (appendix III of this IAN)
Approval / Declaration of the maintenance programme	Direct approval by TM-CAD Or Indirect approval by contracted CAMO Or Declaration by the owner (see M.A.302(h)) **(only for ELA1 aircraft not involved in commercial operations, see M.A.302(h))**	Direct approval by TM-CAD Or Indirect approval by contracted CAMO Or Declaration by the owner (see M.A.302(h)) **(only for ELA1 aircraft not involved in commercial operations, see M.A.302(h))**
Performance of Airworthiness Review and issue of Airworthiness Review Certificate	CAMO or TM-CAD	TM-CAD Or CAMO Or Part 145/M.A. Subpart F maintenance organisation (when combined with annual inspection, see M.A.901(l))